
Research Report

An Assessment of the Tinder Mobile Dating Application for Individuals Who Are Visually Impaired

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It is a commonly accepted axiom in anthropology that, in general, in the search for romantic partners, people desire to find others who exhibit the potential for becoming high-quality breeding partners (Kapperman, Page, & Kelly, 2014). The specific criteria include characteristics that vary by gender such as physical attractiveness, youth, health, intelligence, and earning power (Cashdan, 1997; Jones, 1996). People with visual impairments (that is, those who are blind or have low vision) have a clear disadvantage in this process of being selected as a romantic partner and selection of suitable partners (Kapperman et al., 2014). It is further underscored that these difficulties with dating and fitting in among sighted individuals extend beyond formative years into adulthood (Sacks & Wolffe, 2006).

Thus, the researchers were interested in investigating the issue of sighted individuals dating persons who are blind. The question was, Are sighted individuals opposed to dating persons who are blind? The purpose of the present study was to determine the degree to which sighted individuals may or may not view people who are blind as potential breeding partners.

With that in mind, the researchers made the decision to use Tinder (2016), the currently

very popular online dating application, as a vehicle with which to answer the question. Research on how people find mates and partners in the general population underscores the efficiency and rise of online searches to facilitate romantic connections (Rosenfeld & Thomas, 2012). Even after controlling for other contributing factors, those who have access to the Internet within their homes are significantly more likely to have romantic partners (Rosenfeld & Thomas, 2012). Compared with traditional media that is costly and involves a limited reach (Shore & Zweimüller, 2015), Tinder allows users to reach large numbers of individuals through this social media outlet at no cost. Tinder is a mobile dating application that people use to find casual dates, serious relationships, friendships, and sexual partners. The application is linked to the user's Facebook profile to draw information such as age, friends, and photos. The user is able to upload up to six photos and add a personal description of up to 500 characters. The profile includes age and mutual Facebook friends. School, occupation, interests, and Instagram photos are also options to display to other users.

METHODOLOGY

Ethical clearance for this study was obtained from the Northern Illinois University Institutional Review Board (IRB). In this study, four graduate students from the Visual Disabilities Program at Northern Illinois University were recruited to provide pictures and simple profiles. Two female graduate students and two male graduate students volunteered to participate. They ranged from 22 to 25 years of age. One man ("Male 1") and one woman ("Female 1") were brunettes and the other man ("Male 2") and woman ("Female 2") were blonds. The senior researchers for this study judged them to be of approximate equal attractiveness by conducting an informal poll of the program staff members.

The senior researchers wish to express their appreciation to the four graduate students who volunteered to act as Tinder account holders in the study. Those individuals are Sarah Terrazas, Kylie Kilmer, Michael Gannon, and Ryan Kupfer.

Tinder profile characteristics

Deception is a common tactic in widely used social networking platforms, as noted by Tsikerdekis and Zeadally (2014) and, as mentioned, the methods involved in the present study were fully approved by the IRB at Northern Illinois University. Thus, this framework for online deception within social media (Tsikerdekis & Zeadally, 2014) was employed in this study as well. Each male and each female posed in the exact same manner as a sighted individual (without sunglasses or a white cane) and as an individual who is blind (with sunglasses and a white cane clearly visible in the picture). All four graduate students wore “conservative” clothing while posing for their profile pictures. The focus was placed on the fact that they appeared to be sighted or blind without other extraneous factors being taken into consideration by those who would view their profiles.

The researchers created eight different profiles representing the four individuals who appeared to be either sighted or blind. Two profiles were men who appeared to be sighted, two profiles were men who appeared to be blind, two profiles were women who appeared to be sighted, and two profiles were women who appeared to be blind. For the profiles of the individuals who appeared to be blind, the individuals posed for a full-body photo wearing clothing with no logos, blue jeans, sunglasses, and holding a white cane. For the sighted profiles, the same individuals posed in the same clothing with no sunglasses and no cane. All profiles portrayed the researchers smiling and in a neutral, indoor location. Each profile had only one photo with no additional description, interests, or other information.

Tinder account settings

For the purposes of this study, the researchers used account settings that were limited to heterosexual relationships. For example, the male accounts were searching solely for fe-

male matches and the female accounts were searching solely for male matches.

The Tinder application is restricted for use by adults aged 18 years or older. The age range of all the accounts that were created for the purpose of this research was set for ages 18 to 34 years. This setting restricts the ability of a potential responder to view or interact with a profile unless he or she is within the specified age range. The sighted and blind profiles noted the true ages of the graduate students at the time of the study as 23, 24, 24, and 25 years of age.

Tinder also has a setting for the distance at which profiles can be viewed. The distance is calculated as the radius from the location of the device used by the account holder and his or her potential matches. As a control, the devices, two iPhones, remained in the same location for the duration of the study. The distance for all accounts was set at 50 miles. This distance was chosen to the population of the Chicago metropolitan area, where people often choose shorter distances for matches because of population density. The researchers did not want to include the downtown Chicago area in the account settings because most people in the downtown area had specified distances of less than 50 miles. The devices that were used to collect the data were located on the campus of Northern Illinois University, DeKalb, Illinois. The university is located approximately 60 miles from the Chicago metropolitan area. Thus, setting the distance limitation at 50 miles eliminated any possibilities that individuals located within the city limits of Chicago would have access to the profiles.

Tinder swiping process

The process followed by Tinder users is described below. Tinder users view profiles that meet the criteria specified in the account settings briefly, then “swipe left” for “pass” (indicating no interest in the profile) and “swipe right” for “like” (indicating interest in the

Table 1
Number and percentage of swipes resulting in likes.

Subject	Number of swipes resulting in likes	Percentage of swipes resulting in likes
Spring semester 2015		
Blind male 1	21	3%
Blind female 1	276	39%
Sighted male 1	16	2%
Sighted female 1	300	43%
Fall semester 2015		
Blind male 2	29	4%
Blind female 2	418	60%
Sighted male 2	20	3%
Sighted female 2	476	68%

Note: There was a total of 700 swipes per profile.

profile). In order to be a “match,” a mutual like must occur whereby both users swipe right for each other. Matches can be made only one time. That is, a particular user who is responding positively to another user’s profile cannot swipe right several times to accumulate multiple matches to that profile. Once a match has been established by both users swiping right, the application allows them to participate in direct conversation if they so choose. For this study, the researchers swiped right (like) for every prospective match.

Data collection process

There were four rounds of data collection, with each round lasting 14 days. Two rounds occurred in the spring semester of 2015 (April), and two more rounds occurred during the fall semester of 2015 (October). Only two profiles were active in each round—one male and one female. Rounds 1 and 3 included profiles for account holders who appeared to be blind, and rounds 2 and 4 included profiles for those who appeared to be sighted. Each day, for 14 days, the researcher swiped right (like) for 50 profiles for a total of 700 likes. Immediately prior to each day’s swiping session, which occurred at 9:30 p.m., the number of likes was recorded. No results were re-

corded on day 1 to allow other Tinder users time to match the profiles. The final tally was recorded on the 15th day at 9:30 p.m., which allowed for 24 hours during which Tinder users could respond to the last 50 swipes (likes) from the researcher. Text messages that Tinder users sent to the profiles we created for the purpose of this research were recorded; however, the researcher did not respond to any of these written messages.

Every day, the number of matches received by the research profiles were counted. This process was followed for the profiles of each of the four account holders in both conditions (blind and sighted). At the conclusion of the process, we totaled the likes for each of the four account holders in both conditions. Thus, we were able to determine if there was a significant difference, by condition, in the number of matches that each of the four account holders received. This method allowed us to determine if there was a significant difference in the number of likes or matches between the profiles (sighted or blind) for each of the four account holders.

DATA ANALYSIS

Table 1 displays the data that were gathered during the study. The total number of swipes per profile was 700. The numbers shown in

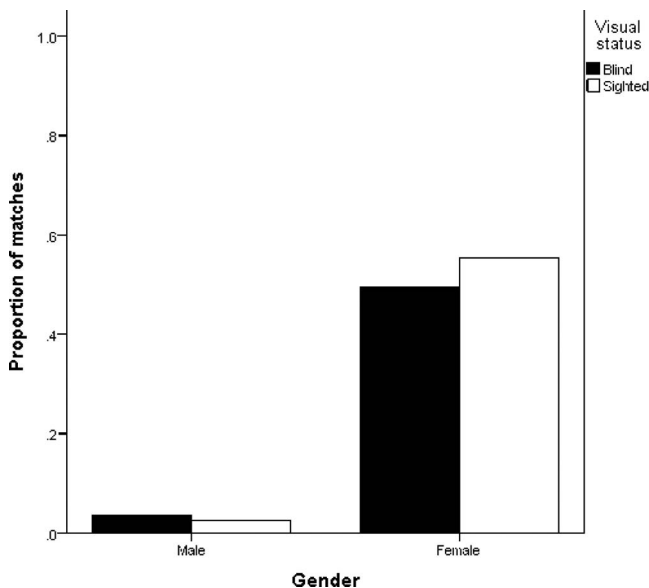


Figure 1. Proportion of Tinder matches by gender and visual status.

Table 1 represent the total number of likes for each individual.

Analysis of the data we collected for this study was carried out using binary logistic regression (Agresti, 2012), where the dependent variable was whether or not a swipe right (like) by the account holder on a particular Tinder user's profile received a swipe right from that user, resulting in a match. Independent variables were the visual status of the account holder's profile (blind or sighted), the gender of the profile (female or male), and the particular individual in the profile (one of the four account holders). In addition, a gender \times visual status interaction term was employed to examine the potential moderating effects of gender on the relationship between visual status and a matching outcome for the profile.

RESULTS

Results from the logistic regression showed that the three predictors considered together—visual status of the profile, profile gender, and the particular individual in the profile—significantly predicted the likelihood of a matching swipe right of the profile: $X^2(5) = 2135.62$,

$p < .001$. Similarly, the Hosmer-Lemeshow test indicated a good fit of this model to the data: $X^2(6) = 2.02$, $p = .92$. When the statistical significance of individual predictors was evaluated, results showed that female account holders were significantly more likely than the male account holders to secure matches ($b = 3.90$, $p < .001$, $OR = 49.30$). More pertinent to the purpose of this study, the visual status of the account holder was not a statistically significant predictor of a match ($b = -0.34$, $p = .13$). However, a statistically significant gender \times visual status interaction effect on the likelihood of a match was evident ($b = 0.59$, $p = .013$; $OR = 1.80$). Specifically, for men, a person who is blind was more likely to obtain a match; while for women, a sighted person was more likely to secure a match. Figure 1 shows the proportion of matches for females and males by visual status.

Limitations

There are several limitations to the results of this study that serves as a pilot exploration into this virtual social environment on behalf of people with visual impairments. There

were a small number of profiles created. Also, the only social media source used was Tinder. As a result of the limitations, the findings of this study cannot be generalized beyond the scope of this particular study with Tinder as the particular social media application.

DISCUSSION AND IMPLICATIONS

There are several points that can be drawn from the analysis of the data. First, many more men responded to the female account holders than women responded to the male account holders. That finding resulted because of cultural norms that dictate that men are supposed to approach women for dating purposes (Jones, 1996).

A second finding is that without regard to visual status, female account holders were more likely to secure matches than were the male account holders, a finding that also undoubtedly stemmed from the fact that men are encouraged to approach women rather than the opposite (Jones, 1996).

A third finding is that the male account holders who appeared to be visually impaired may have had a greater chance of forming relationships with sighted females than would female account holders who appeared visually impaired in their attempts to form relationships with sighted males.

These findings and the limitations of the study are suggestive of future research possibilities. The nearly 1.75 billion (or one in four) social media users worldwide include diverse audiences and broad geographic areas (Shore & Zweimueller, 2015). Additional research possibilities include a larger and more diverse range of profiles within several different types of popular social media applications that are being used on a global scale (Shore & Zweimueller, 2015).

This study draws attention to the importance of teaching people who are visually impaired how to use the Internet and, more specifically, social media in a safe and appropriate manner on a regular basis (Kelly, 2011;

Kelly & Smith, 2008; Kelly & Wolffe, 2012). In addition, instruction that involves social media training needs to include the assistive technologies that are needed by people with visual impairments to access these online forums (Kelly, 2011). The Internet continues to expand possibilities and create opportunities for relationships between strangers (Rosenfeld & Thomas, 2012), and assistive technology training is required for people who are visually impaired to access and participate in these highly interactive online venues (Kelly, 2011).

REFERENCES

- Agresti, A. (2012). *Categorical data analysis* (3rd ed.). Hoboken, NJ: Wiley.
- Cashdan, E. (1997). Women's mating strategies. *Evolutionary Anthropology*, 5(4), 134–143.
- Jones, D. (1996). An evolutionary perspective on physical attractiveness. *Evolutionary Anthropology*, 5(3), 97–109.
- Kapperman, G., Page, K., & Kelly, S. M. (2014). Finding the one: Human mate selection applied to persons who are visually impaired. *Division on Visual Impairments Quarterly*, 59(2), 38–44.
- Kelly, S. M. (2011). Digital social interactions: Tips for teachers and parents of students with visual impairments. *Division on Visual Impairments Quarterly*, 56(3), 33–35.
- Kelly, S. M., & Smith, T. J. (2008). The digital social interactions of students with visual impairments: Findings from two national surveys. *Journal of Visual Impairment & Blindness*, 102(9), 528–539.
- Kelly, S. M., & Wolffe, K. (2012). Internet use by transition-aged youth with visual impairments in the United States: Assessing the impact of postsecondary predictors. *Journal of Visual Impairment & Blindness*, 106(10), 597–608.
- Rosenfeld, M., & Thomas, R. (2012). Searching for a mate: The rise of the Internet as a social intermediary. *American Sociological Review*, 77(4), 523–547.

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- Sacks, S. Z., & Wolffe, K. E. (Eds.). (2006). *Teaching social skills to students with visual impairments: From theory to practice*. New York: AFB Press.
- Shore, R., & Zweimueller, S. (2015). *Social medial for health and development*. Washington, DC: Global Health eLearning Center. Retrieved from <https://www.globalhealthlearning.org/course/social-media-health-and-development>
- Tinder. (2016). Tinder Inc. (Version 5.3.2) [Mobile Application Software]. Retrieved from <http://itunes.apple.com>
- Tsikerdekis, M., & Zeadally, S. (2014). On-line deception in social media. *Library and Information Science Faculty Publications*. Paper 12. Retrieved from http://uknowledge.uky.edu/slis_facpub/12
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